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(54) Title: ISOLATED STROMAL CELLS AND METHODS OF USING THE SAME

(57) Abstract

Methods of treating patients who are suffering from a disease, disorder or condition characterized by a bone cartilage or lung defect are disclosed. The methods comprising the step of intravenous administration of stromal cells isolated from normal syngeneic individuals or intravenous administration of stromal cells isolated from the patient subsequent to correction of the genetic defect in the isolated cells. Implant devices comprising a container that has at least one membrane surface and stromal cells isolated from bone marrow that comprise a gene construct are disclosed. The gene construct in the stromal cells comprises a nucleotide sequence that encodes a beneficial protein operably linked to regulatory elements which function in stromal cells. Methods of treating individuals with diseases, disorders or conditions which can be treated with a beneficial protein, including diseases, disorders or conditions characterized by gene defects are disclosed. The methods comprise introducing into such individuals, stromal cells that are administered in a manner that physically isolates them from the recipient's immune system and that comprise a gene construct that comprises a nucleotide sequence that encodes a beneficial protein operably linked to regulatory elements which function in stromal cells.